

## Characterization of growth variability and vegetative compatibility of *Botrytis cinerea* isolates originated from apple and strawberry in Lithuania

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*Botrytis cinerea* Pers.: Fr. is a necrotrophic pathogen causing grey mould in a large part of economically important horticultural crops. The variability of *Botrytis cinerea* populations is known to be very high and has not been investigated on fruit crops in Lithuania. The use of vegetative compatibility grouping (VCG's) of the fungal isolates gives an opportunity for population sub-structuring. The aim of the research was to compare *Botrytis cinerea* isolates originated from strawberry and apple fruits in different growth conditions and to assess their VCG's. Single conidial isolates were purified on Potato dextrose agar (PDA) at 22±2 °C. The growth of six *Botrytis cinerea* isolates was investigated on six culture media, in three temperatures and two light regimes. Eighteen strains of *Botrytis cinerea* were tested for VCG's in a template where isolates paired in all possible combinations. The larger colony diameter after four days of incubation was for *Botrytis cinerea* isolates isolated from strawberry on PDA and beer universal agar (BUA) in 24 h dark / light regime, followed by pectin agar in 24 h light. Similarly, the maximal radial growth of the isolates from apple was on PDA (dark — 1.54 cm), followed by BUA (dark / light — 1.40 cm) after four days of incubation at 20 °C. In the VCG's tests barrage reactions were evident of mycelial contacts between several isolates indicating their vegetative incompatibility. The tests revealed that 76 % were compatible and 24 % were incompatible among investigated isolates.

**Keywords:** barrage, dark / light, *Fragaria ×ananassa*, *Malus ×domestica*, temperature